

# TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

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## REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR		CONTRACT NO./TASK NO.		JOB ORDER NUMBER	APPROP. FY
QSS Group, Inc.		NAS5- 99124	TASK NO. 369	562-632-82-02-89	0
TASK TITLE: (NTE 80 characters; include Project name)					
Radiation Effects Testing and Analysis Software Services					
APPROVALS: (Type or print name and sign)					
ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)			DATE	ORG CODE	MAIL CODE
Kenneth A. Label <i>Darryl D. Lakins for</i>			9/15/00	562	562.1
BRANCH HEAD			DATE	CODE	PHONE
Darryl Lakins <i>Darryl D. Lakins</i>			9/15/00	562	301-286-5118
CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)			DATE	CODE	PHONE
Robert S. Lebair <i>Robert S. Lebair</i>			9/20/00	560	301-286-6588
FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE? (IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK)		CONTRACTING OFFICER'S QUALITY REP.		DESIGNATED FAM:	
(X) NO ( ) YES					
The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.				(To be completed by Contracting Officer) C.O. Requested Quote on: Date: SEP 20 2000	
Contractor will develop specification or statement of work under this task for a future project (X) NO ( ) YES					
Flight hardware will be shipped to GSFC for testing prior to final delivery ( ) NO ( ) YES (X) N/A					
Government Furnished Property/Facilities ( ) NO (X) YES -- SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)					
Onsite Performance: ( ) NO (X) YES If yes: (X) TOTAL ( ) PARTIAL If partial, indicate onsite work in SOW by asterisk (*)					
Surveillance Plan Attached: (X) NO ( ) YES					
Highlighted Contract Clauses: (to be completed by Contracting Officer)					
Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be 10/1/00.					
INCENTIVE FEE STRUCTURE (check one) (See Contract NAS5-99124, Attachment K, Incentive Fee Plan)					
	No. 1	No. 2	X No. 3	No. 4	No. 5
Cost	10%	50%	25%	25%	%
Schedule	15%	25%	25%	50%	%
Technical	75%	25%	50%	25%	%
(To be completed by Contracting Officer)					
The target cost of this task order is \$ 226,226					
The target fee of this task order is \$ 14,498					
The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ 240,724					
The maximum fee is \$ 21,190					
The minimum fee is \$0.					
AUTHORIZED SIGNATURE:					
THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"					
<i>Elizabeth J. Austin</i>			10/26/00		
SIGNATURE OF CONTRACTING OFFICER			DATE		
			TYPED NAME OF CONTRACTING OFFICER		
ELIZABETH J. AUSTIN			CONTRACTING OFFICER		
CONTRACTOR'S ACCEPTANCE:					
AUTHORIZED SIGNATURE			DATE		

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<b>QSS Group, Inc.</b>	NAS5- <b>99124</b>	TASK NO. <b>369</b>	AMENDMENT

Applicable paragraphs from contract Statement of Work:      Function 2D8

**STATEMENT OF WORK:**      (Continue on blank paper if additional space is required)

*(This is a follow-on to Task 125 under this contract; uninterrupted transition is required.)*

The requirement is to provide services to the Radiation Effects and Analysis (REA) Group of the Component Technologies and Radiation Effects Branch (Code 562). The radiation effects of concern are total ionizing dose (TID), displacement damage (DD), and single event effects (SEE).

The contractor shall provide services to the REA in the design and development of software as follows:

1. Design and development of test suite software compatible with existing VXI test equipment or with standalone RH21020-based test setup for radiation effects testing. This may include participation at test sites.
2. Design and development of ground radiation test analysis software.
3. Design and development of software upgrade of user front-end for use with remote-controlled 3-axis with one degree of rotation stage used for radiation testing at remote test sites.
4. Design and development of software for radiation/technology flight experiments.
5. Curator capabilities for maintenance and periodic upgrades to the REA's website including database development and maintenance, graphical interfaces, and associated information dissemination efforts. This includes both Java and Html coding.
6. Ground-system software for the analysis of flight engineering telemetry and flight radiation/technology experiments. This includes interfacing with national and international organizations to work issues such as telemetry formats.
7. Database development and management of the REA radiation effects test data. This includes reducing raw data to processed data and graphics.
8. General REA services in the area of developing graphics, schedules, and reports for delivery to REA sponsors its partners.

GFE is PCs and software tools for code development and website maintenance.

Performance of radiation tests may take place onsite (i.e., GSFC's Co-60 source) or offsite (i.e., Brookhaven National Labs or University of California at Davis). Radiation safety certification is required.

**PERFORMANCE SPECIFICATIONS:**

**Analyses of data** (flight experiment and ground test) shall provide experiment/engineering background and full analysis of events observed during radiation experiments.

**Software deliverables** shall include documented and functioning code as well as source code. Documentation shall be in accordance with industry standard practice.

**Website performance** shall be based on completeness of information, ease of use, and meeting of ITAR restrictions.

**Reports and Documents:** Technical performance will be based on thoroughness and completeness of written reports. Acceptable performance is that the ATR is satisfied that the material reflects the proper level of technical expertise and meets the objectives of the activity. Reports shall be delivered to the ATR both as a hard copy and in MS Word format via either diskette or email.

**Technical Progress Report:** Acceptable performance is that the ATR is satisfied that he is being kept informed of the status of work performed and of issues requiring his attention.

**Management:** Performance will be measured against the following metrics: (1) accomplishment of objectives; (2) clear, incremental progress; (3) responsiveness to issues; (4) efficient and appropriate staffing; and (5) coordination with and good working relationship with ATR and other related contractor efforts, if applicable.

**APPLICABLE DOCUMENTS:**

None.

**TASK END DATE:**      9/30/01

**MILESTONES/DELIVERABLES AND DATES:**

See Page 3.

**PERFORMANCE STANDARDS:**

**Schedule:**      On-time delivery/completion of the deliverables/milestones  
**Technical:**      ATR's acceptance of the above

**FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):**

Kenneth A. LaBel, building 11, room E208B

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**MILESTONES/DELIVERABLES AND DATES:**

**Analysis of radiation experiments:** 2 weeks following test completion

<b>Website:</b>	1. Upgrade of Electronics Radiation Characterization (ERC) Project Website	12/30/00
	2. Maintenance and data entry of websites	Periodic
<b>Reports:</b>	1. Quarterly reports to Defense Threat Reduction Agency and NASA Electronic Parts and Packaging Program	12/15/00, 3/15/01, 6/15/01, 9/15/01
	2. Flight experiment data analysis lessons learned - II	1/15/01
	3. Technical Progress Report	Monthly, 15th of the month
<b>Software:</b>	1. Upgrade of tester code	11/15/00
	2. Motion controller code - phase 3	11/15/00
	3. Demonstration of STRV-1d telemetry system including dosimetry, Optocoupler and Digital experiments	11/1/00
	4. Completion of linear transient code	1/1/01
	5. Development of predictive optical link tool	6/30/01
<b>Data Analysis:</b>	1. MPTB f/o experiment updates	10/30/00, 3/1/01, 7/1/01
	2. STRV-1d experiment data analysis	Launch date 10/01; 12/15/00, 3/15/01, 6/15/01, 9/15/01
<b>Miscellaneous:</b>	1. Presentation preparation for and technical services at IEEE Aerospace Conference	3/15/01
	2. Technical services for ERC presentations and conferences	11/15/00, 3/15/01, 5/15/01
	3. Technical paper co-author for and services at IEEE NSREC and/or RADECS	7/10/01, 9/10/01